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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/055,403 | 01/22/2002 | Hideo Nagai | NAK1-BQ88 | 7193 |

7590 07/17/2003

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EXAMINER

TRAN, TAN N

ART UNIT PAPER NUMBER

2826

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,403

Applicant(s)

NAGAI ET AL.

Examiner

TAN N TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 05/19/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 11-14 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23 and 28-30 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 11, 24-27 is/are rejected.
- 7) ☒ Claim(s) 3 and 12-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's communication filed on 05/22/03 has been carefully considered by the examiner. The arguments advanced therein are persuasive with respect to the rejections of record and those rejections are accordingly withdrawn. In view of a further search, however, a new rejection is set forth further below. This action is not made final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,11,24,25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kiyoharu (JP-06-310763).

With regard to claims 1,11,24,25, Kiyoharu discloses a light-emitting unit assembly comprising: at least two light-emitting units, wherein each light-emitting unit includes: a flat polygonal member 1 is flexible substrate; a light-emitting member which is provided on a main surface of the polygonal member 1; wherein the light-emitting member is made up of a plurality of light-emitting diodes (42-45) that are set at frequent intervals on the main surface of the polygonal member 1; at least three sets of terminals (7-14), each set of terminals being provided on a different side of a periphery of the polygonal member 1; and a wiring pattern which is provided to the polygonal member to connect the terminals 8,10,12,14 with the light-emitting

members 42,43,45,44, and wherein one of side of a polygonal member of a light-emitting unit on which a set of terminals has been provided is set facing one side of a polygonal member of another light emitting unit on which a set of terminals has been provided, and corresponding terminals on facing sides of the two light-emitting units are electrically connected by conduction pattern (33,34,37); and a translucency resin 46 which has flexibility and covers the light-emitting member. (Note figs. 1,3 of Kiyoharu). It is inherent that the wiring pattern connects to the set of terminals with the light emitting member in order to electrically connect the light emitting diode 42(45) to the terminal 7(9).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,26,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyoharu (JP-06-310763).

With regard to claim 2, Kiyoharu discloses all the claimed subject matter except for the light emitting member has a first electrode and a second electrode, and emits light when power is supplied through the first and second electrodes, the wiring pattern connects the first terminal to the first electrode, and the second terminal to the second electrode. However, it would have been obvious to one of ordinary skill in the art to form the light emitting member has a first electrode and a second electrode, and emits light when power is supplied through the first and second

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electrodes, the wiring pattern connects the first terminal to the first electrode, and the second terminal to the second electrode in order to receive an electrical signal from external devices.

With regard to claims 26,27, Kiyoharu discloses a light-emitting unit assembly comprising: at least two light-emitting units, wherein each light-emitting unit includes: a flat polygonal member 1 is flexible substrate; a light-emitting member which is provided on a main surface of the polygonal member 1; wherein the light-emitting member is made up of a plurality of light-emitting diodes (42-45) that are set at frequent intervals on the main surface of the polygonal member 1; at least three sets of terminals (7-14), each set of terminals being provided on a different side of a periphery of the polygonal member 1; and a wiring pattern which is provided to the polygonal member to connect the terminals 8,10,12,14 with the light-emitting members 42,43,45,44, and wherein one of side of a polygonal member of a light-emitting unit on which a set of terminals has been provided is set facing one side of a polygonal member of another light emitting unit on which a set of terminals has been provided, and corresponding terminals on facing sides of the two light-emitting units are electrically connected by conduction pattern (33,34,37); and a translucency resin 46 which has flexibility and covers the light-emitting member. (Note figs. 1,3 of Kiyoharu). It is inherent that the wiring pattern connects to the set of terminals with the light emitting member in order to electrically connect.

Kiyoharu discloses all the claimed subject matter except for a light scatter which scatters light emitted from the plurality of light-emitting diodes. However, it would have been obvious to one of ordinary skill in the art to form a light scatter which scatters light emitted from the plurality of light-emitting diodes in order to enhance the emitting light efficiency.

Allowable Subject Matter

4. Claims 3,12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3,12-14 are allowable over the prior art of record, because none of these references disclose or can be combined to yield the claimed invention such as the set of terminals further includes a third terminal, the wiring pattern connects the third terminal to the second electrode, and the set of terminals is provided so that the first terminal is positioned at a midpoint of the side and the second terminal and third terminal are symmetrically positioned with respect to the first terminal as recited in claim 3, the set of terminals includes a common terminal and pairs of color terminals, the pairs of color terminals corresponding to the different colors; the wiring pattern connects an electrode at one of a low-potential end and a high-potential end of each group of series-connected light-emitting elements to the common terminal and connects an electrode at the other end of each group of series-connected light-emitting elements to a pair of color terminals that corresponds to the same color as the group, and the set of terminal is provided so that the common terminal is positioned at a midpoint of the side and two color terminals that compose each pair of color terminals are symmetrically positioned with respect to the common terminal, and with projections provided on the side of the light-emitting unit being fit into depressions provided on the side of the other light-emitting unit as recited in claims 12,14.

5. Claims 21-23, 28-30 are allowable over the prior art of record, because none of these references disclose or can be combined to yield the claimed invention such as the set of terminals includes a common terminal and color terminals that correspond to the different colors, and the wiring pattern connects an electrode at one of a low-potential end and a high-potential end of each group of series-connected light-emitting elements to the common terminal as recited in claims 21, 22, and a wiring pattern which is provided to the polygonal member to connect terminals of equal polarities with each other in the at least three sets of terminals as recited in claim 28.

Conclusion

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (703) 305-3362. The examiner can normally be reached on M-F 8:30AM-5PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for after final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TT

July 2003


Minhloan Tran
Primary Examiner
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